**To:** Ariel Horowitz[ahorowitz@synapse-energy.com]

Cc: Jeremy Fisher[jfisher@synapse-energy.com]; DeYoung, Robyn[DeYoung.Robyn@epa.gov]

From: Joseph Jakuta

**Sent:** Mon 11/9/2015 7:41:56 PM

Subject: Re: AVERT data transfer from ERTAC

CONUS 2.3

Sent from my iPhone

On Nov 9, 2015, at 13:15, Ariel Horowitz <a href="mailto:synapse-energy.com">ahorowitz@synapse-energy.com</a> wrote:

Hi, Joseph,

Just to make sure: is the data you sent us based on CONUS run 2.3 or a different run?

Thanks!

Ariel

From: Joseph Jakuta [mailto:JJakuta@otcair.org]

Sent: Friday, November 06, 2015 2:15 PM

**To:** Ariel Horowitz <a href="mailto:synapse-energy.com">synapse-energy.com</a>>; Jeremy Fisher <a href="mailto:synapse-energy.com">jfisher@synapse-energy.com</a>>; Jeremy Fisher <a href="mailto:synapse-energy.com">synapse-energy.com</a>>; Jeremy Fisher <a href="mailto:synapse-energy.com">synapse-energy.com</a>; Jeremy Fisher <a href="mailto:synapse-energy.com">synapse-energy.com</a>>; Jeremy Fisher <a href="mailto:synapse-energy.com">synapse-energy.com</a>; Jeremy Fisher <a href="mailto:synapse-energy.com">synapse-energy.com</a>; Jeremy Fisher <a href="mailto:synapse-energy.com">synapse-energy.com</a>; Jeremy Fisher <a href="mailto:synapse-energy.com">synapse-energy.com</a>; Jeremy Fish

energy.com>

Cc: deyoung.robyn@epa.gov

Subject: RE: AVERT data transfer from ERTAC

That is likely the case. The ERTAC code doesn't do that, but I would suspect that people include the N in their data sets since CAMD wouldn't have assigned them anything.

Joseph

From: Ariel Horowitz [mailto:ahorowitz@synapse-energy.com]

Sent: Friday, November 06, 2015 2:12 PM

To: Joseph Jakuta; Jeremy Fisher Cc: deyoung.robyn@epa.gov

Subject: RE: AVERT data transfer from ERTAC

Thanks for the clarifications! Are unit numbers prefixed by "N" meant to designate planned new units, then?

Thanks again, Ariel

On Fri, Nov 6, 2015 at 11:06 AM -0800, "Joseph Jakuta" < JJakuta@otcair.org > wrote:

I stand corrected on the generic units. They are in there (they are any unit with a unit id G followed by six digits).

Something is wrong with the CO2 column and I will have to look into that one to figure out how to fix it.

Joseph

From: Joseph Jakuta

Sent: Friday, November 06, 2015 1:59 PM

To: 'Jeremy Fisher'

Cc: DeYoung, Robyn; Ariel Horowitz

Subject: RE: AVERT data transfer from ERTAC

1.

a. They are retired.

b. This does not seem correct, there should definitely be generic units, though after

thinking about it. I am 95% sure this is due to a bug on my end that should be easy to correct.

- 2. It should be safe to assume that each unit has 8760 lines. I can add a check into my post processor to guarantee that it was correct.
- 3. This doesn't surprise me, but if they all need to read 0.0 that is an easy fix. Let me know.
- 4. I will have to look into this.
- 5. The base year is 2011 and the future year is 2018.

From: Jeremy Fisher [mailto:ifisher@synapse-energy.com]

Sent: Friday, November 06, 2015 1:45 PM

To: Joseph Jakuta

Cc: DeYoung, Robyn; Ariel Horowitz

Subject: RE: AVERT data transfer from ERTAC

Hey Joseph,

We've managed to parse the ERTAC files and almost get them into a form where we can start running AVERT, but I wanted to do a quick sanity check on a few items:

- 1. There are fewer power plants in the 2018 dataset (4,133) than existed in 2014 (4,721), and I don't see any "generic" units in the listing.
- a. Is the reduction in number of units because of units that are not selected to run in the ERTAC mechanism, or because units were retired by 2018?
- b. Are there no generic units because existing units could cover energy requirements without additional builds, or because generic units aren't listed in this dataset?
- 2. Is it safe to assume that the format of the big flat file is 36,205,080 by 5, and that each unit is represented by a block of 8760 hours? (i.e. all 8760 hours of the first unit, followed by 8,760 of the next unit... etc)?
- 3. There are lines in the CSV file that are zero for all factors, but read as follows "0.0,0.0,0.0," Are the blanks in the 4<sup>th</sup> and 5<sup>th</sup> position appropriately interpreted as zero?
- 4. The third column, header "CO2\_mass (lb/hr)" is throwing me off a bit. In many lines it is zero although there is generation, heat input, SO2 and NOx data. In lines where it is not zero, it is often (always?) the same as heat input. Can you provide some guidance?

Thanks!

-Jeremy

From: Joseph Jakuta [mailto:JJakuta@otcair.org]
Sent: Monday, November 02, 2015 3:59 PM

**To:** Jeremy Fisher < <u>jfisher@synapse-energy.com</u>>

Cc: Chris Lamie < <a href="mailto:Chris.Lamie@erg.com">Chris.Lamie@erg.com</a>>; DeYoung, Robyn

<DeYoung.Robyn@epa.gov>

Subject: RE: AVERT data transfer from ERTAC

Jeremy,

Let me know if you can download the files.

https://www.dropbox.com/sh/e4v1ofwzlz2ct4j/AAABN3Q0yzeEfzKXHMbbXzQCa?dl=0

From: Jeremy Fisher [mailto:jfisher@synapse-energy.com]

Sent: Monday, November 02, 2015 3:51 PM

To: Joseph Jakuta

Cc: Chris Lamie; DeYoung, Robyn

Subject: RE: AVERT data transfer from ERTAC

Looking forward to your transfer via dropbox.

Thanks Joseph.

From: Joseph Jakuta [mailto:JJakuta@otcair.org]
Sent: Monday, November 02, 2015 12:30 PM
To: Jeremy Fisher <jfisher@synapse-energy.com>

Cc: Chris Lamie < Chris.Lamie@erg.com >; DeYoung, Robyn

<<u>DeYoung.Robyn@epa.gov</u>>

Subject: RE: AVERT data transfer from ERTAC

Sure thing. 202-508-3839.

Joseph

From: Jeremy Fisher [mailto:jfisher@synapse-energy.com]

Sent: Monday, November 02, 2015 12:28 PM

To: Joseph Jakuta

Cc: Chris Lamie; DeYoung, Robyn

Subject: RE: AVERT data transfer from ERTAC

Sorry Joe,

Can I give you a ring to coordinate? Phone?

Jeremy

Sent from my Verizon Wireless 4G LTE smartphone

----- Original message ------

From: Joseph Jakuta < <u>JJakuta@otcair.org</u>> Date: 11/02/2015 11:58 AM (GMT-05:00)

To: Jeremy Fisher <ifisher@synapse-energy.com>

Cc: Chris Lamie < Chris.Lamie@erg.com >, "DeYoung, Robyn"

<DeYoung.Robyn@epa.gov>

Subject: RE: AVERT data transfer from ERTAC

Jeremy,

I haven't heard from your about the best way to transfer out hourly data to you.
Thanks, Joseph
From: DeYoung, Robyn [mailto:DeYoung.Robyn@epa.gov] Sent: Monday, October 26, 2015 1:53 PM To: Jeremy Fisher; Joseph Jakuta Cc: Chris Lamie Subject: AVERT data transfer from ERTAC
Hi Jeremy and Joseph,
I think it's best you two talk about the best way to transfer the ERTAC data for processing in AVERT. Jeremy – Joe left me a voicemail asking for the best method to send you the data, given that it's obviously too big to send via email. Can you follow up with Joe and give him the best method for transferring data to you.
Please cc me on your correspondence.
Best,
Robyn (Kenney) DeYoung
202-343-9080

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## U.S. EPA

## State and Local Climate and Energy Program

http://epa.gov/statelocalclimate/